Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte JOHN M. GREIG

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Appeal No. 2000-0901
Application No. 08/553,321

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Before CALVERT, ABRAMS, and GONZALES, Administrative Patent Judges.

CALVERT, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 2 to 4 and 8 to 12, all the claims remaining in the application.

The claims on appeal are drawn to a method of joining a pipe to a coupling, and are reproduced in the appendix of appellant's brief.

The references applied in the final rejection[1] are:

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| Thompson | 96,286 | Oct. 26, 1869 |
| Hedeman | 2,260,454 | Oct. 28, 1941 |
| Wehringer | 2,319,024 | May 11, 1943 |
| Metcalfe et al. (Metcalfe) | 4,293,147 | Oct. 6, 1981 |

Claims 2 to 4 and 8 to 12 stand finally rejected under 35 U.S.C. § 103(a) as unpatentable over Hedeman in view of Thompson and either of Wehringer or Metcalfe.

Hedeman discloses a pipe (hose) to coupling (nipple) joint in which an end (insert) of the coupling, having a ridge 16 at its end and circumferential projections 17 on its exterior, is inserted into the end of the pipe and a clamp 18 is positioned around the pipe, pressing it against the insert. Hedeman's disclosure concerning the clamp is (col. 2, lines 26 to 33):

> The numeral 18 designates a clamp of any suitable type for the purpose of pressing the hose against the annular ridge 16 and assuring the effective sealing of the connection between the hose and the nipple. The use of a clamp is not essential but is desirable where the hose is to be used for transmitting liquid under substantial pressure.

[1] Paper No. 16, January 13, 1999.

Appellant and the examiner agree that claim 8, the only independent claim on appeal, differs from Hedeman in the five respects specified on pages 7 and 8 of appellant's brief. The first two of these are that Hedeman discloses a clamp 18, rather than a "right tubular sleeve having a fixed largest internal diameter less than the external free state diameter of the pipe," as recited in claim 8. With regard to this limitation, the examiner cites Thompson, which discloses a hose-to-coupling joint in which a ring *b* having an internal diameter smaller than the external diameter of the hose *a* is positioned near the end of the hose to compress it (Fig. 1), and then the neck *c* of the coupling, which has external grooves, is forced into the compressed area, "pinching [the hose] between the inner surface of ring *b* and the outer surface of *c*" (col. 2, lines 16 and 17). The examiner takes the position that it would have been obvious to utilize a ring (sleeve) as disclosed by Thompson as the clamp 18 of Hedeman, the Thompson ring being a clamp "of any suitable type." Although appellant argues that such a modification of Hedeman would not have been obvious (brief, pages 10 and 11), we

consider that Thompson would have suggested the use of a constricting sleeve in place of Hedeman's clamp 18 as a suitable means for pressing a hose against an inner grooved member to prevent leakage therebetween.

The combination of Hedeman and Thompson would, however, still differ from claim 8 as to items 4 and 5 specified on pages 7 and 8 of the brief, i.e., there is no disclosure or suggestion in the combination of the claimed steps of causing the sleeve to move to a temporary location on the pipe, inserting the insert into the unconstricted end portion of the pipe, and then causing movement of the sleeve toward the end of the pipe until the pipe is gripped between the insert and the sleeve. The examiner finds these limitations to have been obvious in view of Wehringer or Metcalfe.

In Wehringer and Metcalfe, a sleeve (Wehringer 13, Metcalfe 19) is moved to a temporary location on a pipe (Wehringer 16, Metcalfe 21), an externally grooved insert (Wehringer 11, Metcalfe 16) is inserted into the end of the pipe, and the sleeve is moved toward the end of the pipe until the pipe is gripped between the insert and the sleeve. In neither Wehringer nor Metcalfe, however, does the sleeve have

an internal diameter smaller than the external diameter of the pipe, so that the pipe is constricted by the sleeve; rather, the sleeve's inner diameter is the same or larger than the outer diameter of the pipe (Wehringer, page 2, col. 1, lines 21 to 24; Metcalfe, col. 2, lines 5 to 8). The examiner concludes that in view of Wehringer or Metcalfe, it would have been obvious "to position [the] sleeve at a remote location and then force the sleeve over the end of the pipe after the coupling has been inserted into the pipe" (answer, page 6).

After fully considering the record in light of the arguments presented in appellant's brief and reply brief, and in the examiner's answer, we conclude that the rejection of claim 8 is not well taken. In our view, Wehringer or Metcalfe would not have suggested moving the sleeve of the Hedeman/Thompson combination to a temporary location, and then back to a pipe-gripping position, because the sleeves of Wehringer and Metcalfe are, as noted above, of such an internal diameter as to be relatively freely movable on the exterior of the pipe, whereas the sleeve *b* of the Hedeman/Thompson combination is not. Since in Hedeman as

modified in view of Thompson, the sleeve is in its final (pipe-gripping) position when the coupling is inserted into the end of the pipe, and the sleeve would have to be forced to move along the exterior of the pipe to any other position, we do not consider that Wehringer or Metcalfe would have motivated one of ordinary skill to force the Hedeman/Thompson sleeve along the pipe to another, temporary location, insert the coupling, and then force the sleeve back to its pipe-gripping position.

Accordingly, the rejection of claim 8, as well as of dependent claims 2 to 4 and 9 to 12, will not be sustained.

Conclusion

The examiner's decision to reject claims 2 to 4 and 8 to 12 is reversed.

REVERSED

IAN A. CALVERT )
Administrative Patent Judge )
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| NEAL E. ABRAMS<br>Administrative Patent Judge | ) BOARD OF PATENT<br>) APPEALS AND<br>) INTERFERENCES |
| JOHN F. GONZALES<br>Administrative Patent Judge | ) |

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